

CLAIMS

1. An operating system for a construction machine comprising:

setting means (36) for setting a target value with respect to a frequency distribution of a prescribed state value relating to an operational condition of the construction machine;

detecting means for detecting a prescribed state value; and

control means (35) for calculating the frequency distribution of said prescribed state value detected by said detecting means, comparing said frequency distribution thus calculated with said target value set by said setting means (36), and outputting a previously prepared message in accordance with the comparison result.

2. The operating system for a construction machine according to claim 1, wherein

a plurality of regions are set in a range of possible variation of said prescribed state value;

said setting means (36) sets said target value for each of said regions; and

said control means (35) compares said frequency distribution with said target value, for each of said regions, and outputs said message in accordance with the comparison result for each of said regions.

3. The operating system for a construction machine according to claim 1, wherein

    said setting means (36) sets target values for a plurality of prescribed state values;

    said detecting means detects a plurality of prescribed state values; and

    said control means calculates a plurality of frequency distributions of said plurality of prescribed state values, compares said frequency distributions with said target values for said prescribed state values respectively, and outputs a previously prepared message in accordance with the combination of comparison results for said plurality of prescribed state values.

4. The operating system for a construction machine according to claim 1, wherein said prescribed state value is a hydraulic oil pressure.

5. The operating system for a construction machine according to claim 1, wherein said prescribed state value is an engine speed.

6. The operating system for a construction machine according to claim 1, wherein said prescribed state value is a frequency of a work action.

7. The operating system for a construction machine according to claim 1, wherein said prescribed state value is a fuel consumption amount or a fuel consumption rate.

8. The operating system for a construction machine according to claim 1, wherein said message is displayed on a monitor screen (26) in an operator's cab (11).

9. The operating system for a construction machine according to claim 1, wherein said message is issued by means of a voice announcement from a voice generator.

10. The operating system for a construction machine according to claim 1, wherein the whole system is mounted in the construction machine.

11. The operating system for a construction machine according to claim 1, further comprising:

an component (40) located in the construction machine and another component (41) located outside the construction machine, wherein said message is sent from the component outside the construction machine to the component in the construction machine.

12. The operating system for a construction machine according to claim 1, wherein said message is displayed on a section located outside the construction machine.

13. An operating system for a construction machine comprising:

setting means (36) for setting a target value with respect to a frequency of a workless state of the construction machine;

detecting means for detecting a workless state during a period that an engine of said construction machine is operated; and

control means (35) for calculating a frequency of said workless state detected by said detecting means, comparing the frequency of said workless state thus calculated with said target value set by said setting means, and outputting a previously prepared message in accordance with the comparison result.

14. The operating system for a construction machine according to claim 13, wherein said workless state is a state where an automatic deceleration function is engaged.

15. The operating system for a construction machine according to claim 13, wherein said workless state is a state where a lever lock function is engaged.

16. An operational control method comprising the steps of:

setting a target value with respect to a frequency distribution of a prescribed state value relating to an operational condition of a construction machine;

detecting a prescribed state value;

calculating the frequency distribution of said prescribed state value detected by detecting means, comparing said frequency distribution thus calculated with said target value set by said setting means (36), and outputting a previously prepared message in accordance with the comparison result.